CLAIMS

The invention claimed is:

1. A decoding method comprising:

decoding information received at a network device by applying a first algorithm iteratively until a stopping criterion is reached; and

further decoding the information using a second algorithm different than the first algorithm.

2. The decoding method of claim 1 wherein the information comprises a block encoded codeword.

3. The decoding method of claim 2 wherein the block encoded codeword comprises a low density parity check (LDPC) codeword.

4. The decoding method of claim 1 wherein the network device includes a radio frequency (RF) transceiver.

5. The decoding method of claim 4 wherein the RF transceiver comprises a wireless local area network (WLAN) transceiver.

6. The decoding method of claim 1 wherein the network device comprises an Ethernet device.

7. The decoding method of claim 1 wherein the stopping criterion comprises a number of decoding iterations.

8. The decoding method of claim 1 wherein the stopping criterion comprises an elapsed time.

9. The decoding method of claim 3 wherein further decoding using a second algorithm comprises:

identifying one or more check nodes having lowest metrics after the stopping criterion is reached;

identifying at least one of a bit node or edge having lowest metrics and associated with each identified check node; and

assessing parity relationships for the identified at least one bit node or edge.

10. The decoding method of claim 9 further comprising:

flipping one or more bits associated with an identified check node.

11. A device configured to decode received information using a first iterative decoding algorithm to converge a probability regarding bit logic states and after a last iteration, using a second decoding algorithm to potentially flip a logic state of one or more bits.

12. The device of claim 11 wherein the received information comprises one or more low density parity check (LDPC) codewords.

13. The device of claim 11 comprising a user station.

14. The device of claim 11 comprising a network access station.

15. The device of claim 11 comprising a network interface card (NIC).

16. The device of claim 11 comprising an orthogonal frequency division multiplexing (OFDM) enabled transceiver.

17. The device of claim 11 comprising:

a receiver;

a digital processing portion coupled to the receiver; and

an antenna coupled to the receiver.

18. A communication system comprising:

a radio frequency (RF) transceiver; and

a decoder coupled to the RF transceiver and adapted to decode received information using a first iterative decoding process and to further

decode the received information using a second decoding process different than the first iterative decoding process.

19. The communication system of claim 18 comprising a wireless local area network (WLAN) access point (AP).

20. The communication system of claim 18 further comprising one or more antennas coupled to the RF transceiver.

21. The communication system of claim 18 comprising a cellular telephone.

22. The communication system of claim 18 comprising a personal computer.

23. The communication system of claim 18 comprising a base station.

24. A method for decoding information comprising:

receiving coded information;

iteratively decoding the received information; and

after a last iteration, flipping one or more bits of the decoded information having a low probability of a certain logic state.

25. The method of claim 24 further comprising:

identifying one or more check nodes having lowest metrics.

26. The method of claim 25 further comprising:

assessing parity relationships of one or more bit nodes or edges associated with an identified check node.

27. The method of claim 26 wherein flipping one or more bits comprises changing a logic value of one or more bits associated with the assessed bit nodes or edges.